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EXAMINER	
PICH, PONNOREAY	
ART UNIT	**PAPER NUMBER**
2135	

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/892,298	ENGLAND ET AL.	
	Examiner	Art Unit	
	Ponnoreay Pich	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 June 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/1/2002*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-34 have been examined and are pending.

Information Disclosure Statement

The examiner has considered the documents listed in the IDS submitted by the applicant to the best extent possible. There were some which were not considered because they were non-patent literature which the applicant failed to supply to the examiner or the applicant failed to supply an English translation for the document (i.e. the document by Chabaud was submitted in French only).

Specification

The use of the trademarks MICROSOFT, MICROSOFT WINDOWS, MICROSOFT WORD, and MICROSOFT MEDIA PLAYER have been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 6-7, 11, 18-21, 23-24, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over "SDMI Portable Device Specification, Part 1, Version 1.0" hereafter referred to as SDMI Spec in view of Van Dyke (US 6,321,314).

Claim 1:

SDMI discloses a computing device including a system thereon for allowing rendering of protected digital content on the computing device (p6, sections 3.2 and 3.5), the content including a type of content to be rendered on a corresponding rendering device coupled to the computing device (p6, section 3.6), the computing device also including a section therein for receiving the type of content in a non-protected form (p11, Figure 2), the section including memory for storing the received content (p11, Figure 2, item *Non-removable secure storage*).

SDMI does not explicitly disclose the memory being configured to be write-only except with regard to the section. However, restricting access to memory so that only certain computing components or applications have exclusive read or write or exclusive read and write access is well known in the art at the time the applicant's invention was made. Van Dyke also discloses that memory can be configured so that access to it is restricted (col 2, lines 37-38).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify the computing device (and section) disclosed by SDMI in light of common knowledge in the art and Van Dyke's teachings according to the limitations recited in claim 1. One of ordinary skill would have been motivated to do so as it would allow for content providers to have better control over their digital

content including the legal distribution of their digital content, which was a goal disclosed by SDMI (p30, section 10.1.1.1 and 10.1.3). Configuring memory thusly would make it harder to steal the digital content no matter the type of digital content, i.e. audio, video, graphics, ect.

The examiner would like to note that the SDMI compliant devices can be a component/section of another computing device which does not meet SDMI standards, or the entire device itself can be SDMI compliant and it has a component/section which allows it to render digital content, including video content (p32, section 10.2.4).

Claim 18:

Claim 18 is substantially similar to claim 1 except it refers to a section on the computing device of claim 1. The same arguments used to reject claim 1 also apply to claim 18.

Claim 2:

SDMI discloses a computing device including a digital rights management (DRM) system, i.e. LCM (Licensed Compliant Module), thereon for allowing rendering of protected digital content on the computing device (p6, sections 3.1, 3.2, and 3.5), the content including video content to be displayed on a monitor coupled to the computing device (p6, section 3.6).

SDMI does not explicitly disclose the computing device also including a video section therein for receiving the content and for producing a video signal to be sent to the monitor based on the received content, the video section including video memory for storing the received content. However, a SDMI computing device which renders video

content must include a video section therein for receiving the content and for producing a video signal to be sent to the monitor based on the received content as SDMI discloses that video and graphics are types of contents that could be rendered by SDMI devices (p6, section 3.6). If the SDMI compliant device which renders video content did not meet this limitation, then there would be no point in having it capable of rendering video content as the content is usually rendered as a video signal to be viewed on some type of monitor. Also, SDMI compliant devices must have the video section include video memory for storing the received content, as memory would be needed to perform the rendering algorithm.

SDMI also does not explicitly disclose the video memory being configured to be write-only except with regard to the video section. However, restricting access to memory so that only certain computing components or applications have exclusive read or write or exclusive read and write access is well known in the art at the time the applicant's invention was made. Van Dyke also discloses that memory can be configured so that access to it is restricted (col 2, lines 37-38).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify the computing device (and video section) disclosed by SDMI in light of common knowledge in the art and Van Dyke's teachings according to the limitations recited in claim 2. One of ordinary skill would have been motivated to do so for the same reasons given in claim 1.

Claim 19:

Claim 19 is substantially similar to claim 2 except it refers to the video section on the computing device of claim 2. The same arguments used to reject claim 2 also applies to claim 19.

Claims 3 and 20:

SDMI and Van Dyke do not explicitly disclose the video section is/comprises a video card. However, the video section must be/comprises a video card or there would be no way to render digital video content in a manner that can be displayed on a monitor.

Claims 4 and 21:

SDMI does not explicitly disclose any entity external to the video section cannot read the received content stored in the video memory. However, as mentioned previously, restricting access to memory so that only certain computing components or applications have exclusive read or write or exclusive read and write access is well known in the art at the time the applicant's invention was made. Van Dyke also discloses that memory can be configured so that access to it is restricted (col 2, lines 37-38).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to further modify a SDMI's computing device and video section according to the limitations recited in claims 4 and 21. One of ordinary skills would have been motivated to do so for the same reasons given in claim 1.

Claims 6 and 23:

SDMI discloses the rights-protected digital content allowed to be rendered by the DRM system (p12, section 4.4, last sentence). SDMI does not explicitly disclose the video memory is configured to be write-only with regard to the rights-protected digital content allowed to be rendered by the DRM system.

However, as mentioned previously, it was well known in the art and disclosed by Van Dyke that memory can be configured to restrict access to it in certain manners (col 2, lines 37-38). By restricting access to the memory, one is also restricting access to any content that is stored in the memory.

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to further modify a SDMI's computing device and video section according to the limitations recited in claims 6 and 23. One of ordinary skills would have been motivated to do so for the same reasons given in claim 1.

Claims 7 and 24:

SDMI does not explicitly disclose the content is accompanied by a signal to the video section to implement the write-only configuration for the content. However, the only way for the content to get to the video section to be rendered is for it to be accompanied by a signal to the video section.

As claims 7 and 24 depends on claims 6 and 23 respectively, the examiner has already addressed the issue of how and why it would have been obvious for one of ordinary skill in the art at the time the applicant's invention was made to modify the memory in the video section so that it was write-only to anything except the video section. For this reason, when the content gets to the video section and is written to

memory, the configuration for the content must be write-only. Therefore, it would have been obvious for one of ordinary skill in the art to further modify SDMI's teachings according to claims 7 and 24 for the same reasons given in claim 1.

Claims 11 and 28:

SDMI does not explicitly disclose the video memory is configured to be write-only with regard to rights-protected digital content allowed to be rendered by the DRM system and also with regard to other digital content. However, the limitation in which the video memory is configured to be write-only with regard to rights-protected digital content allowed to be rendered by the DRM system has already been addressed in claims 6 and 23. Further, SDMI discloses that non-rights-protected content (i.e. contents that aren't SDMI protected contents) can also be rendered by SDMI compliant devices after it has been admitted into the SDMI Domain (p21, section 6.1, step 2). Thus any content gets treated in a manner similar to SDMI protected contents, i.e. rights protected content.

Therefore, it would have been obvious for one of ordinary skill in the art to modify the video memory according to the limitations recited in claims 11 and 28. One of ordinary skills would have done so for the same reasons given in claim 1 and because the combination system of SDMI and Van Dyke would treat rights-protected and other content in the same manner.

Claims 5, 8-9, 22, and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over "SDMI Portable Device Specification, Part 1, Version 1.0" hereafter referred to as SDMI Spec in view of Van Dyke (US 6,321,314) and Oka (US 6,028,596).

Claims 5 and 22:

SDMI and Van Dyke do not disclose the video memory is video RAM. However, Oka discloses that video memory is video RAM was known at the time the applicant's invention was made (col 1, lines 14-17). It would have been obvious for one of ordinary skill to have video memory as video RAM as it would allow for faster rendering of video frames.

Claims 8 and 25:

SDMI and Van Dyke do not disclose the write-only configuration is implement in the video memory by creating at least one write-only buffer in such video memory. However, the use of buffers in video memory to increase frame rates was well known in the art at the time the applicant's invention was made. Further, Oka discloses the use of buffers in video memory (col 6, lines 60-62 and Figure 5). The write-only limitation of the video memory has already been addressed in previous claims. It would have been obvious for one of ordinary skill in the art at the time the applicant's invention was made to further modify SDMI and Van Dyke's teachings according to the limitations recited in claims 8 and 25 in light of Oka's teachings. One of ordinary skill would have been motivated to do so as it would have allowed for frames to be displayed at a higher rate which would produce better quality video outputs.

Claims 9 and 26:

SDMI and Van Dyke do not disclose each write-only buffer is a bitmapped secondary video surface to be displayed over a primary surface. However, Oka discloses the video memory using a buffer (col 6, lines 60-62 and Figure 5). Oka also discloses video memory being bit-mapped VRAM in which images are first written to a secondary video surface before being displayed over a primary surface (col 6, lines 63-67; col 7, lines 5-14; and Figure 5).

In light of Oka's teachings, it would have been obvious for one of ordinary skills to further modify SDMI and Van Dyke's computing device and video section according to the limitations recited in claims 9 and 26. One of ordinary skill would have been motivated to do so for the same reasons given in claims 8 and 25.

Claims 10 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over "SDMI Portable Device Specification, Part 1, Version 1.0" hereafter referred to as SDMI Spec in view of Van Dyke (US 6,321,314) and Oka (US 6,028,596) further in view of Bertin et al (US 5,604,755).

Claims 10 and 27:

SDMI, Van Dyke, and Oka do not explicitly disclose the video section clears each write-only buffer upon freeing same. However, power cycling a computing device was well known at the time the applicant's invention was made. Bertin further discloses that it was known at the time the applicant's invention was made that memory can occasionally get errors and that power cycling was a way to correct some errors (col 1,

lines 24-27 and 46-49). When a system is power cycled, memory (and memory buffer) must be freed and cleared.

It would have been obvious to one of ordinary skill at the time the applicant's invention was made to further modify SDMI, Van Dyke, and Oka combination system according to the limitation recited in claims 10 and 27. One of ordinary skills would have done so as it would allow for errors in memory to be corrected as disclosed by Bertin (col 1, lines 24-27 and 46-49).

Claims 12-15 and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over "SDMI Portable Device Specification, Part 1, Version 1.0" hereafter referred to as SDMI Spec in view of Van Dyke (US 6,321,314) and Shear et al (US 6,157,721).

Claims 12 and 29:

SDMI discloses a DRM system (p6, section 3.). SDMI and Van Dyke do not disclose the video section further includes an authentication device for authenticating to the DRM system that the video memory is configured to be write-only except with regard to the video section. However, Shear disclosed a verifying authority which analyzes a module to make sure it performs a specified function (col 9, lines 41-47). This authority creates a digital signature/token to authenticate that a module does what it is supposed to do (col 9, lines 51-54). The video section with video memory configured to be write-only except with regard to the video section is a limitation previously addressed in claims 2 and 19.

In light of Shear's teachings, it would have been obvious for one of ordinary skill in the art to further modify SDMI and Van Dyke's hybrid video section according to the limitations recited in claim 12. One of ordinary skills would have been motivated to do so as it would provide content providers better assurance that the device rendering their content in fact is as secure as it is supposed to be and for the reasons given in claim 1.

Claims 13 and 30:

SDMI and Van Dyke do not explicitly disclose the limitation recited in claims 13 and 30. However, it is common knowledge and disclosed by SDMI that contents and devices which are protected as intellectual property controlled by a controlling entity exists at the time the applicant's invention was made (p6-7, section 3.71). It is also further known and disclosed by SDMI that to legally use the legally protected contents and devices that a license must be obtained from the controlling entity and that the user must adhere to the terms of the license (p6, section 3.1 and 3.7.1 and p23, section 7.1). (Note that these facts were also disclosed by the applicant in the applicant's specification in the "Background of the Invention").

Further, Shear disclosed the authentication device is a feature legally protected as intellectual property controlled by a controlling entity (claim 5). Note that the authentication device is a claimed feature (i.e. intellectual property) of the patent in which Shear is an inventor and the features recited in this patent is owned by the entity InterTrust Technologies Corp. The video section with video memory configured to be write-only except with regard to the video section is a limitation previously addressed in claims 2 and 19.

It would have been obvious for one of ordinary skill in the art at the time the applicant's invention was made to further modify SDMI, Van Dyke, and Shear's combination system according to the limitations recited in claims 13 and 30. One of ordinary skills would have been motivated to do so as it would allow the owner of the authentication device (or any other device) to control who gets to manufacture the intellectual property they own and under what terms. One of ordinary skills would also have been motivated to do so for the reasons given in claim 1.

Claims 14 and 31:

SDMI discloses legally protected content is in a form that may be presented to the DRM system (p6, section 3.6). Digital data can be presented to the LCM (i.e. DRM) is also disclosed by SDMI (p6, section 3.6). SDMI and Van Dyke do not explicitly disclose **the** legally protected feature is in a form that may be presented to the DRM system. However, Shear discloses that his authentication device claimed by him as a legally protected feature include a digital "seal of approval", i.e. certificates, tokens, or signatures (col 9, lines 51-55 and claim 5).

Therefore, it would have been obvious for one of ordinary skill to further modify the combination system of SDMI, Van Dyke, and Shear according to the limitation recited in claims 14 and 31. One of ordinary skills would have been motivated to do so for the same reason given in claims 12 and 29.

Claims 15 and 32:

SDMI discloses a DRM system (p6, section 3.). SDMI and Van Dyke do not disclose the legally protected feature is in a form that may present a token to the DRM

system. However, Shear discloses that his authentication device claimed by him as a legally protected feature include a digital "seal of approval," which the examiner asserts to be a token. As it is digital data, it can be presented to the DRM system.

It would have been obvious for one of ordinary skill to further modify the combination system of SDMI, Van Dyke, and Shear according to the limitation recited in claims 15 and 32. One of ordinary skills would have been motivated to do so for the same reason given in claims 12 and 29.

Claims 16 and 33:

SDMI and Van Dyke do not explicitly disclose the limitations recited in claims 16 and 33. SDMI does disclose a DRM system (p6, section 3.). Further, Shear discloses the authentication device comprises a token (i.e. digital signature) as obtained from an authentication entity (col 9, lines 41-55). Note that the token being digital in nature is in a form that can be presented to the DRM system disclosed by SDMI. The video section with video memory configured to be write-only except with regard to the video section is a limitation previously addressed in claims 2 and 19.

It would have been obvious for one of ordinary skill to further modify the combination system of SDMI, Van Dyke, and Shear according to the limitation recited in claims 16 and 33. One of ordinary skill would have been motivated to do so for the same reasons given in claims 12 and 29.

Claims 17 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over "SDMI Portable Device Specification, Part 1, Version 1.0" hereafter referred to as

SDMI Spec in view of Van Dyke (US 6,321,314) and Shear et al (US 6,157,721) further in view of Hsu et al (US 5,982,898).

Claims 17 and 34:

SDMI and Van Dyke do not explicitly disclose the limitations recited in claims 17 and 34. However, Shear discloses the presented token is a certificate (col 9, lines 51-55 and claim 5, item c). Further, Hsu discloses that it was known at the time the applicant's invention was made that a certificate, as an authentication device, is revocable by an authentication entity (col 15-26). Hsu also discloses a certificate list that is regularly updated (col 3, lines 50-53). Note that though the list Hsu discloses is a list of revoked certificate, because Hsu discloses the concept of a certificate list, it would be just as obvious to keep track of a list of valid certificates. Hsu also discloses the certificate authority deciding whether or not to issue a valid certificate to an entity based on whether that entity belongs in a certain subject class (col 4, lines 30-34). The examiner asserts that the subject class could be manufacturers who satisfactorily follow certain agreements as specified by another entity who owns the rights to the product to be manufactured.

Therefore, in light of the teachings of Shear and Hsu, it would have been obvious to one of ordinary skill to further modify the combination system of SDMI, Van Dyke, and Shear according to the limitation recited in claims 17 and 34. One of ordinary skills would have been motivated to do so as it would allow content owners more assurance that the system being used to render their contents would not be able to be used to bypass any usage rules they may have associated with their digital contents.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. http://www.webopedia.com/TERM/v/video_memory.html.
2. http://www.answers.com/topic/vram.
3. http://www.sdmi.org/FAQ.htm.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ponnoreay Pich whose telephone number is 571-272-7962. The examiner can normally be reached on 8:00am-4:30pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PP

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